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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/539,375

06/16/2005

Yasunobu Fujita

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06/26/2008

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2100 PENNSYLVANIA AVE. NW

WASHINGTON, DC 20037-3213

EXAMINER

VASISTH, VISHAL V

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

06/26/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/539,375	Applicant(s) FUJITA ET AL.	
	Examiner VISHAL VASISTH	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 6) <input type="checkbox"/> Other: _____ |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :06/16/2005, 06/07/2007, 11/02/2007.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

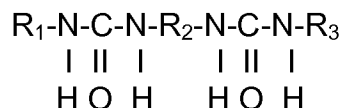
1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1-3, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yokouchi et al., US Patent No. 5,840,666 (hereinafter referred to as US '666).

US '666 discloses a grease composition effective against flaking of rolling bearings and suitable for application to rolling bearings used in electrical parts and auxiliary engine equipment of automobiles. The grease composition can also be used in sealed rolling bearings containing grease (Col. 1/ L. 4-15). The grease composition comprises; an aromatic ester base oil in an amount of 10% by weight or more of an ester oil based on the weight of the base oil in the composition (30% by mass or more based on the whole amount of the base oil) (Col. 5/L. 63-65). The aromatic ester oils include, trioctyl trimellitate, tridecyl trimellitate, and tetraoctyl pyromellitate (Col. 6/L. 13-

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18, as disclosed in claims 2 and 3). The grease composition further comprises, a diurea thickener compound such as the one claimed in claim 1 (Col. 4-5/L. 62- 35), in an amount between 9 to 22 wt% (in an amount form 5 to 35 % by mass) (Col. 9-10/Tables 4 and 5). The diurea of US '666 has the following structure:



Wherein R_1 and R_3 each independently represent alkylcyclohexyl group having 7 to 12 carbon atoms or alkyl group having 8 to 20 carbon atoms, and R_2 is a divalent hydrocarbon group containing an aromatic ring having at least 8 carbon atoms (Col. 4-5/L. 62-35). The prepared grease composition is sealed up in a sealed type deep ball groove bearing with a contact rubber seal (Figure 1), the amount of the grease composition to be sealed is selected from the range generally employed in these types of roller bearings and as disclosed in claims 6 and 7 (Col. 1/L. 18-37 and Col. 6/L. 61-65).

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over US '666 in view of Iso et al., US Patent Application Publication No. 2002/0076125 (hereinafter referred to as US '125)

The grease composition of US '666 does not disclose a carbon black or carbon nano tube used as conductive powder within the composition. US '666 does, however, disclose the use of inorganic fillers as part of the final composition which includes diamonds and graphite (Col. 3/L. 43-49). US '666 also does not include carboxylic

acid/carboxylate or amine based rust preventatives in an amount from 0.2 to 10% by mass and/or from 0.1 to 99% by mass of the second rust preventative.

US '125 discloses a rolling bearing and a grease composition for use in automobile electrical equipment or an electromagnetic clutch for an automobile air conditioner (Para [0001]) comprising, an aromatic ester oil such as those claimed in US '666, tetraoctylpyromellitate (Para. [0025]), and diurea thickener compounds (Para. [0027]), and conductive substances such as carbon black and carbon nano tube (Para. [0029]-[0030]). The object of the rolling bearing comprising an inner ring, an outer ring, a plurality of rolling elements rotatably retained between the inner and outer rings and a grease composition which is sealed in a bearing space defined by the inner and outer rings and the rolling elements (Para. [0007]). Other additives can be added to the finished grease composition (Para. [0034]). It would have been obvious to one of ordinary skill in the art at the time of invention to modify US '666 with carbon black or a carbon nano tube conductive material in order to increase the conductive properties of the grease composition.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over US '666 in view of Koizumi et al., US Patent No. 6,251,841 (hereinafter referred to as US '841).

The final grease composition of US '666 includes additives such as; antioxidants, rust preventatives, metal deactivators, etc (Col. 6/L. 34-49). The rust preventatives can be present in a total amount of up to 20 wt% of the finished grease composition and include, sorbitan esters, but does not include either of carboxylic acid or a carboxylate or amine based rust preventatives.

US '841 relates to a grease composition having improved rust-proofing properties. The grease composition of US '841 is for use in lubricated parts such as rolling bearing for automobile electric parts (Col. 1/L. 4-12). The grease composition comprises, ester based synthetic oils, and diurea thickeners, and can apply regardless of the kind of lubricating base oil and thickener (Col. 4/L. 13-32). The grease composition further comprises a lipophilic organic inhibitor such as carboxylic acid or carboxylate (Col. 2-3/L. 59-7) which acts as a rust preventative when used in combination with a hydrophilic organic inhibitor (Col. 2/L. 36-40), such as lanolin fatty acid amine ester and lanolin fatty acid alkanolamide (Col. 3/L. 18-28). Both the lipophilic and hydrophilic organic inhibitors are present in an amount from 0.1 to 10 wt% respectively based on the total weight of the grease composition (Col. 3/L. 63-67). It would have been obvious to one of ordinary skill in the art at the time of invention to modify US '666 with rust preventatives to reduce the amount of wear to engine components.

Conclusion

6. There were unused X references that were obtained from the search report. The references above disclose all of the claimed elements.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VISHAL VASISTH whose telephone number is (571)270-3716. The examiner can normally be reached on M-R 8:30a-5:30p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571)272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

VVV

/Glenn A Caldarola/
Acting SPE of Art Unit 1797